whereupon then only the inotallic charge is introduced. The iron ore possessed the following composition:—

Si02	A120,	Fo.	C'uO.	MtfO,	MnO.
Per cdiit.	IVr wut.	Per cent.	Pel' Wilt.	Pt'l' eellt.	Per cent.
3-24	1-43	64-76	1-52	0-28	0-39
3-50	1-45	64-50	1-33	0-31	0-36

The ore-lime slag formed contained:—

aiOa	AlaOa.	1<U	CaO.	MKO.	MnO.
Pw mil.	l.'or cent.	POI" (MM it.	P(M' emit..	IVr emit.	X"or cont.
4-18	4-08	50-36	20-39	1/53	0-39
5-10	2-47	55-30	.13-46	0-71	0-69
4/68	2-13	56-47	13-75	2-59	0-95
5-87	1-01	56-22	15-30	0-83	1-01

The oxides of iron appear as the chief constituents of this slag ; lime takes the second place, and silica the third. The relatively high magnesia content shows that the basic structure had been attacked. Tho tests which were taken and investigated during the formation of the slag are interesting.

SLAG I.—FUSED TOGETHER 55 MINUTES AFTKR COMPLETION OF CHARGING.

Thnn Taken Tent,	I'W	KoO.	Total -Fa.
8-10 8-30 8-45 9-1.0	49:62 per cent. 37-01 36-04 27-07	26 '65 per conk. 38-22 39-27 „ 5(r98	55-31 per cont. 5fr63 55-7H „ 56-94 „

SLAG- II.—FUSED TOGETHER 35 MINUTES AFTEB COMPLETION OF CHARGING.

Timn Takon Tent.	F«,0,	FoO.	T..UII. ^
2*0 2-30 2-50 3-35	51*33 per cont. 39-10 21-78 „ 2-91	18-98 per cent. 30-!)9 46-17 „ 63-08	50-79 per cent. 51-47 51-37 51-14